

Information Disclosure Statement

The information disclosure statement filed 3/16/06 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. Note: documents not considered have been crossed out.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Gregory A. Sebald on 6/19/09.

The application has been amended as follows:

Claim 1: A breath actuated dry powder inhaler, comprising a plurality of substantially disc shaped air circulation ~~chamber~~ chambers for de-agglomeration of entrained powdered medicament using the energy of the an inspiratory air stream created by the user, the ~~chamber~~ each of the chambers having a substantially circular or polygonal sidewall extending about a central axis between top and bottom walls of ~~the chamber~~ each of the chambers so that ~~the a~~ a height of ~~the chamber~~ each of the chambers is

smaller than its diameter, a plurality of air supply channels disposed about ~~the a~~ circumference of ~~the chamber~~ each of the chambers, which channels extend from joint or separate air inlets and which channels enter ~~the chamber~~ each of the chambers substantially tangentially to its sidewall, at least one of the supply channels extending through a powder dose supply region of the inhaler, ~~the chamber~~ each of the chambers further comprising an air outlet axially extending from a discharge opening in the ~~centre~~ center of the top or bottom wall of ~~the chamber~~ each of the chambers and connecting to a discharge channel that extends to a mouthpiece, ~~the inhaler comprising at least one further air circulation chamber for de-agglomeration of entrained powdered medicament, the chambers being connected to the mouthpiece in parallel~~ said powder traveling through said dose supply region, then through a plurality of the air supply channels to one of said chambers and exiting through said discharge openings and air outlets, to the discharge channel and to the mouthpiece.

Claim 2: The breath actuated dry powder inhaler of claim 1, comprising a substantially planar housing, at least one chamber being disposed in the housing such that the central axis of the chamber extends transversely to the a plane of the housing and the discharge channel being disposed in the housing such that it extends in the plane of the housing.

Claim 5: The breath actuated dry powder inhaler according to claim 1, wherein the housing is built up of a stack of ~~substantially~~ planar elements.

Claim 7: The breath actuated dry powder inhaler according to claim 1, wherein the circulation chambers are substantially similar ~~identical~~.

Cancel claim 8.

Claim 10: The breath actuated dry powder inhaler according to claim 1, wherein at least two of the chambers are disposed in ~~the~~ a same plane.

Claim 12: The breath actuated dry powder inhaler according to claim 11, wherein ~~the~~ a joint or separate discharge channels are disposed in a further plane, disposed between the parallel ~~plane~~ planes.

Claim 13: The breath actuated dry powder inhaler according to claim 1, ~~wherein the~~ comprising a housing is constructed as a disposable unit.

Claim 14: The breath actuated dry powder inhaler according to claim 1, wherein ~~the or each powder~~ dose supply ~~area~~ region is formed by a sealed dose compartment containing a pre measured dose of powdered medicament, the dose compartment being included in the supply channel and blocking air passage through the channel until removal of the seal of the dose compartment.

Claim 15: The breath actuated dry powder inhaler according to claim 1, wherein ~~the or each~~ a sealed dose compartment is a blister pocket sealed with a removable cover foil.

Claim 16: The breath actuated dry powder inhaler according claim 1, further comprising a carrier carrying a plurality of sealed dose compartments, the compartments on the carrier being indexable relative to the ~~or each powder~~ supply ~~area~~ region of the inhaler.

Cancel claim 17.

Claim 18: A device for pulmonary inhalation, wherein dry powder medicament is inhaled from an inhaler through parallel air supply channels to a plurality of substantially disc shaped air-circulation chambers arranged in parallel and wherein the dry powder is

de-agglomerated in ~~a plurality of the~~ substantially disc shaped air- circulation chambers ~~arranged in parallel~~ in the inhaler using ~~the~~ energy of ~~the~~ an inspiratory air stream created by a user, and wherein, under the action of the inspiratory air stream, the de-agglomerated medicament is axially discharged from the circulation chambers and is subsequently fed through parallel discharge openings and air outlets, to discharge channels towards a mouthpiece.

Cancel claims 19-20.

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance: when read in light of the limitations of the claimed dry powder inhaler, the prior art by itself or in combination does not disclose a plurality of substantially disc shaped air circulation chambers, along with a plurality of air supply channels, discharge openings, air outlets, does supply region, and discharge channel, connected in parallel.

The closest prior art references are Ballini et al. (5,505,193), Pearce (5,070,870), Szekely (4,368,850), Raul (2002/0129817), and Sladek (6,202,643) which are directed towards inhalers with multiple circulation chambers.

The prior art of record does not disclose the specific structure and the functional recitation as in claim 1 such that a breath actuated dry powder inhaler in which the powder medicament travels through a dose supply region, through a plurality of air supply channels to one of said chambers and exiting through discharge openings and

air outlets to the discharge channel and mouthpiece. The prior art of record lacks the teaching of this parallel flow path.

Regarding claim 18, the prior art of record does not disclose the specific structure and functional recitation such that a device for inhalation wherein dry powder is inhaled from an inhaler through parallel air supply channels to a plurality of substantially disc shaped air circulation chambers arranged in parallel and fed through parallel discharge openings and air outlets to a discharge channel and mouthpiece.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to COLIN STUART whose telephone number is (571)270-7490. The examiner can normally be reached on M-F 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on 571-272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/COLIN STUART/
Examiner, Art Unit 3771

/Justine R Yu/
Supervisory Patent Examiner, Art Unit 3771